


**PATIENT**

Bonnie Barclay

**SPECIES**

Canine

**BREED**

Scottish Terrier

**SEX**

Spayed Female

**AGE**

8 years

**WEIGHT**

21 lbs

**PRESENTING CLINICAL SIGNS**

History: Presented 1/25/2022 for an abnormal nail bed swelling (left fore 3rd digit). Treated with multiple rounds of antibiotics (amoxiclav, then clindamycin) and Rimadyl. Swelling never resolved and patient continued to be painful. Seen on 2/25/2022 for a recheck exam. Rads of chest and toes performed. Plan to perform a toe amputation. Concern for neoplasia.

Abnormal PE/Chem/CBC/UA Results: Toe and chest rads 2/26/2022 1. Lysis of the left thoracic limb 3rd digit distal phalanx with surrounding soft tissue swelling raises concern for neoplasia such as squamous cell carcinoma or melanoma. Chronic pododermatitis with phalangeal osteomyelitis cannot be excluded. The proliferative osseous changes in the middle phalanx are most characteristic of a benign process such as collateral ligament enthesopathy (e.g. secondary to laxity of the interphalangeal joints). Since there is no evidence of lysis, neoplastic invasion is considered less likely at this time, but cannot be entirely ruled out. 2. There is no evidence of metastatic disease in the thorax. 3. Mild generalized cardiomegaly is most likely a normal variation for this patient. Compensated valvular insufficiency may also be considered if a heart murmur is auscultated. There is no evidence of congestive heart failure. Culture of toe wound moderate growth staph pseudointermedius abundant Pasteurella moderate growth alpha hemolytic strep CBC/chem 3/10/2022 Hematocrit high 61.8 ALT high 1662 AST high 116 ALP high 3646 GGT high 23 Cholesterol high 418 BNP high 1184 USG 1.016 Quiet sediment Total T4 normal 2.1 Pre and post bile acids pending BP avg 150

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**
**INTERPRETED BY**

Andrea Nicastro, DVM,  
 Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

**Urinary System**

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The mucosal surface is slightly irregular in the region of the apex. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone and the visualized portion of the proximal urethra are normal.

**IMAGING PERFORMED BY**

Dr. Lucas Budden

The left kidney is normal size (4.97 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

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The right kidney is normal size (5.30 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

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**Adrenal Glands**

The left adrenal gland is normal size (0.51 cm at cranial pole) (0.50 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

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The right adrenal gland is normal size (1.04 cm at cranial pole) (0.44 cm at caudal pole) (2.39 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

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**Spleen**

The spleen is normal in size (1.57 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

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**Liver**

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion.

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The gall bladder is distended. The wall is normal in thickness. A scant amount of suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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**Gastrointestinal**

The gastric lumen is moderately distended with ingesta. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with chyme. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

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**Pancreas**

A portion of the pancreas is obscured by the gastric distention. In the visualized portion, no obvious pathology is observed.

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**Free Abdomen**

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A 1.14 cm jejunal lymph node is visible.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- Nonspecific diffuse hepatopathy. Differentials include inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, chronic active hepatitis), hepatotoxicosis (i.e., copper), infiltrative neoplasia (less likely), cholestatic liver disease, vacuolar change, regenerative nodular hyperplasia, other hepatopathy.

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**Secondary Findings**

- Minor chronic age-related renal changes

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Consider Leptospirosis testing (i.e., blood and urine PCR, serology), particularly if the liver enzyme elevations are acute in nature.
- Hepatic tissue sampling, (i.e., fine-needle aspirate or surgical biopsy) is recommended to get a definitive diagnosis. Surgical biopsies would be ideal in that they are more likely to be representative of global organ pathology. If surgery is pursued, aerobic and anaerobic bile

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cultures and acquisition of additional hepatic tissue samples for potential copper quantitation are recommended.

- If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/- metronidazole, Denamarin). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.



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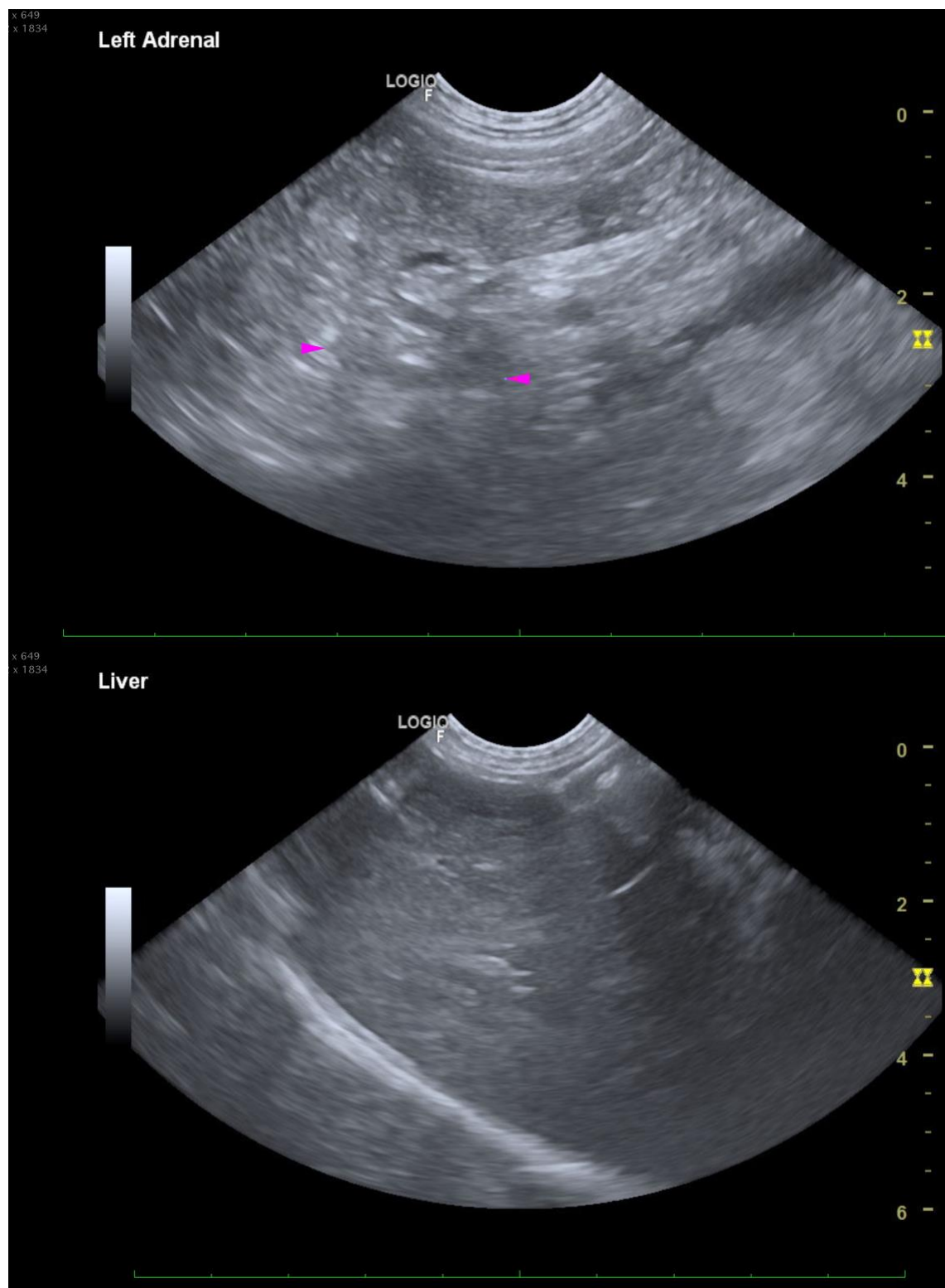
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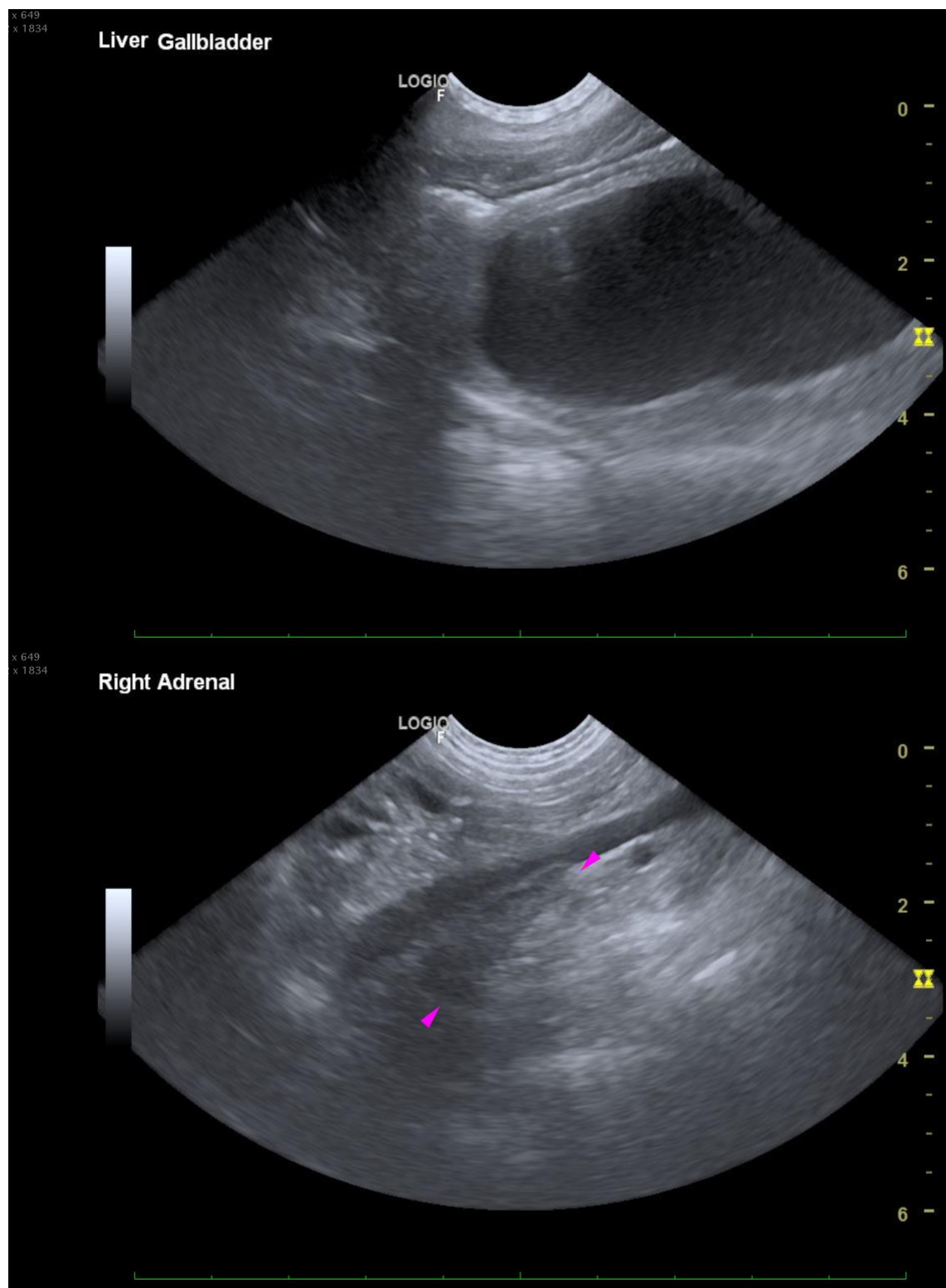
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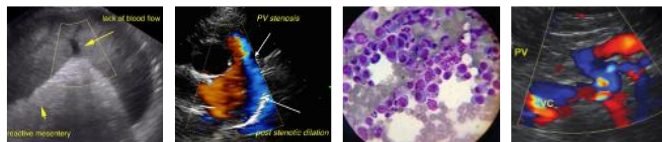
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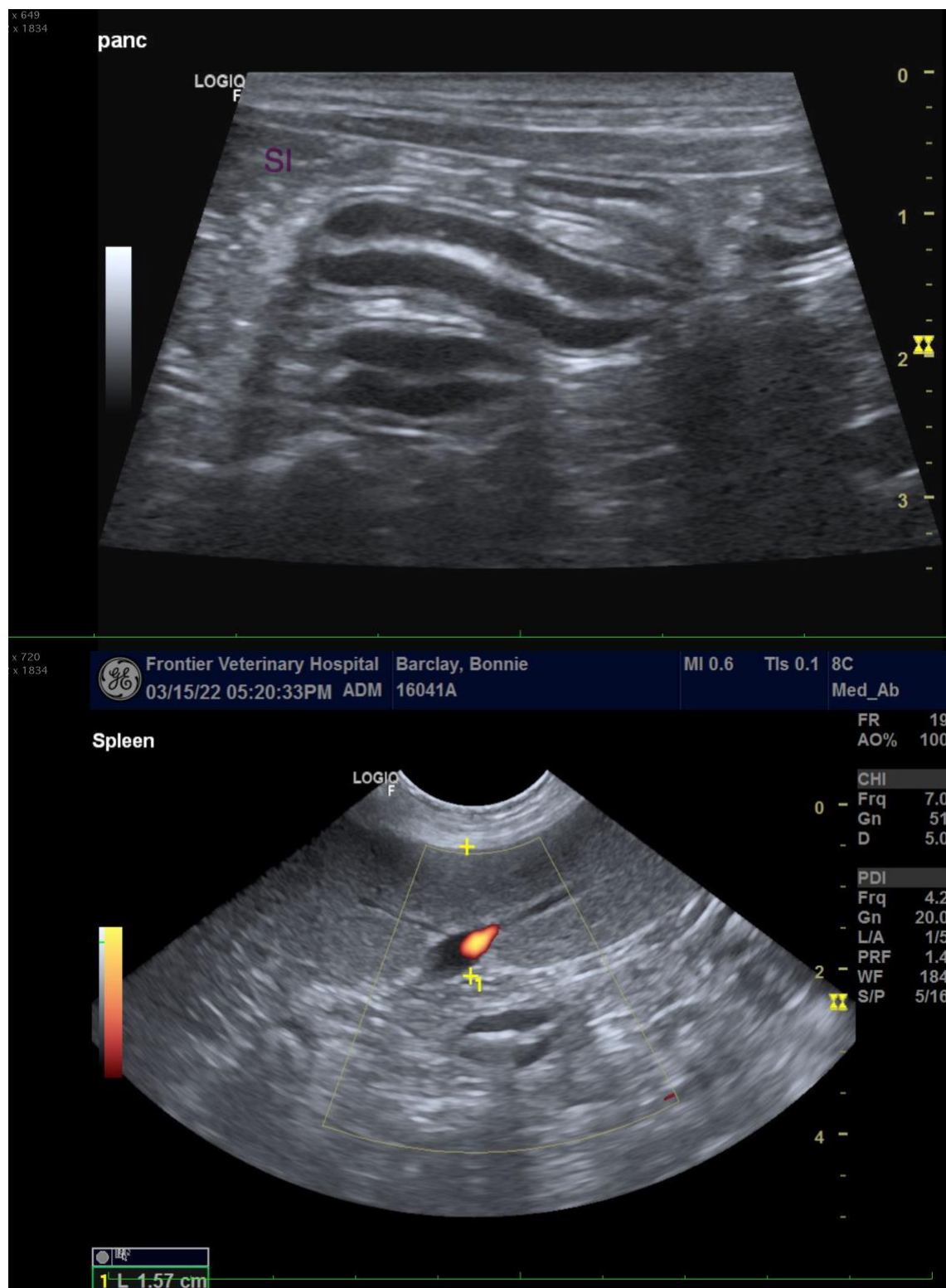
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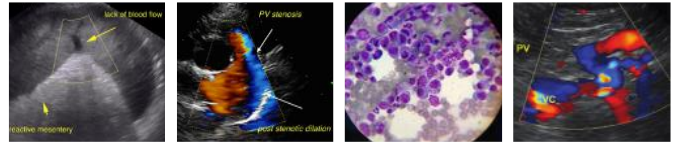
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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